Beyond single-wavelength SHG measurements : spectrally-resolved SHG studies of tetraphosphonate ester coordination polymers.

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Streszczenie

Powder second-harmonic generation (SHG) efficiencies are usually measured at single wavelengths. In the present work, we provide a proof of concept of spectrally resolved powder SHG measured for a newly obtained series of three non-centrosymmetric coordination polymers (CPs). CPs are constructed from tetrahedral linker–tetraphenylmethane-based tetraphosphonate octaethyl ester and cobalt(II) ions of mixed, octahedral (O_h), and tetrahedral (T_d), geometries and different sets of donors (CoO_6 vs CoX_3O). Isostructurality of the obtained materials allowed for the determination of anion-dependent tunability of SHG optical spectra and their relationship with solid-state absorption spectra.

Adres publiczny

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